## COVID-19 Infection

### Signs and Symptoms
- At least 25 percent of cases asymptomatic
- Main: fever, cough, short of breath, chills, fatigue, myalgia, headache, sore throat, loss of smell / taste
- Severe disease: pneumonia, respiratory failure, stroke, pediatric multisystem inflammatory syndrome

### Incubation
The estimated incubation period is 5 days (range 2-14 days)

### Case classification

#### Confirmed:
- Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification detection test

#### Probable (interim until CSTE case classification is finalized):
- Compatible clinical syndrome AND epidemiologic link with no confirmatory test result; OR
- Positive antigen; OR
- Positive serology with compatible clinical syndrome OR epi link; OR
- Death certificate includes “COVID-19” or “SARS-CoV-2” with no confirmatory test result

### Treatment
Experimental treatments under investigation; no vaccine available.

### Duration
Likely contagious ~2 days before onset until symptoms improve; asymptomatic case may be contagious.
Duration not established. May be PCR positive 4+ weeks, but transmission risk unknown.

### Exposure
Person-to-person transmission assumed primarily through respiratory droplets from coughing or sneezing, but may occur by close personal contact (e.g., shaking hands or touching a contaminated object or surface and then touching mouth, nose, or eyes); concern for airborne transmission from aerosol generating procedures; rarely fecal contamination may be an exposure source.

### Laboratory testing
**COVID-19 testing is available at Washington State Public Health Laboratories (PHL) and academic and clinical laboratories.** Preapproval for testing at PHL is not required. Testing at PHL is prioritized for:
- Healthcare workers and first responders (e.g., public safety, fire fighter EMS)
- Illness clusters in a facility or group (e.g., healthcare, school, corrections, business)
- Severe cases of lower respiratory illness (hospitalized or fatal) without alternative diagnosis

For testing at PHL, see specimen collection, shipping and handling information for [COVID-19 on the PHL Laboratory Test Menu](https://www.doh.wa.gov/Emergencies/Coronavirus). LHJs should enroll in QRP to electronically complete forms.

- **Best specimens (collect using appropriate infection prevention)**
  - If intubated, lower respiratory sample (sputum, BAL or tracheal aspirate) in sterile container
  - Also consider second nasal swab for rapid flu and respiratory panel at a clinical laboratory

- **Shipping and handling information:** Keep specimens cold (2-8°C) up to 72 hours until receipt at PHL, otherwise freeze ≤ -70°C; ship with [2019 nCoV Sample Submission form](https://www.doh.wa.gov/Laboratories/PathobiologyTechnologies/PathobiologyTechnicalInformation/Forms/Default.aspx) (not virology or BT), include two identifiers and source on specimens and form.

### Public health actions
**URGENT**

Determine if a case was likely exposed or infectious in a facility or group. Prioritize healthcare-associated or fatal cases and clusters/outbreaks. Investigate case contacts. Ensure essential variables for cases and contacts are in one of designated data flows. Option to use [COVID-19 WDRS form](https://www.cdc.gov/coronavirus/2019-ncov/index.html).

Inform the case to stay home while symptomatic except to get medical care; to call the provider before visiting and identify themselves as having COVID-19; to separate themselves from others (particularly sleeping area and bathroom) to avoid sharing household items such as dishes, towels, or bedding; and to practice respiratory etiquette and frequent hand hygiene. See: [https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html). Close contacts should quarantine 14 days from last exposure.

Provide the following education materials as needed to cases and contacts: [patients with confirmed or suspected COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html) and [persons exposed to a confirmed COVID-19 case](https://www.cdc.gov/coronavirus/2019-ncov/community/worksites/exposed-persons.html); providers may use these and: [unexposed patients with COVID-19 symptoms](https://www.cdc.gov/coronavirus/2019-ncov/community/examples-of-covid-19-information-sheets.html).

COVID-19 Infection

1. DISEASE REPORTING

A. Purpose of Reporting and Surveillance
   1. To identify infections due to COVID-19.
   2. To prevent the spread of COVID-19.

B. Legal Reporting Requirements
   1. Healthcare providers: immediately notifiable to local health jurisdiction
   2. Healthcare facilities: immediately notifiable to local health jurisdiction
   3. Laboratories: immediately notifiable to local health jurisdiction
   4. Local health jurisdictions: immediately notifiable to Washington State Department of Health (DOH) Office of Communicable Disease Epidemiology (CDE)
   5. Employers: outbreaks or suspected transmission in the workplace notifiable to the local health jurisdiction (Governor order July 2020)

C. Local Health Jurisdiction Investigation Responsibilities
   1. Contact CDE immediately (206-418-5500 or 877-539-4344) regarding possible COVID-19 clusters.
   2. Determine exposures and contacts for all confirmed and probable cases. Ensure that appropriate infection control practices are implemented if testing is pending.
   3. For confirmed and probable cases, complete the DOH COVID-19 case report form (https://www.doh.wa.gov/Portals/1/Documents/5100/420-110-ReportForm-COVID19.pdf). Ensure case data is entered or imported into the Washington Disease Reporting System (WDRS) as a Coronavirus case and the Disease as COVID-19. Investigate all identified contacts of confirmed cases and household contacts of probable cases. Ensure essential variables for cases and contacts are in one of designated data flows (see Appendix 1.)
   4. In WDRS, create a COVID-19 outbreak event and enter basic fields in the COVID-19 outbreak question package. Link the outbreak event to any individual cases in WDRS.

2. THE DISEASE AND ITS EPIDEMIOLOGY

A. Etiologic Agent

   Human coronaviruses are named for crown-like surface spikes. The coronavirus subgroups are alpha, beta and gamma, and tentatively delta. Coronaviruses previously known to infect humans were: alpha coronaviruses, 229E and NL63 (cause mild to moderate upper respiratory illness); and beta coronaviruses, SARS-CoV (severe acute respiratory syndrome [SARS]), OC43 and HKU1 (upper respiratory), and MERS-CoV (Middle East respiratory syndrome.) In December 2019, China first reported SARS-CoV-2 (initially called 2019 novel coronavirus) cases. The illness due to SARS-CoV-2 was named COronaVIrus Disease-2019 (COVID-19) by the World Health Organization (WHO).
B. Description of Illness

Initial common symptoms are fever, cough, and shortness of breath, as well as chills, headache, fatigue, muscle aches, sore throat, congestion or runny nose, nausea, diarrhea and loss of taste or smell. An estimated 80 percent of symptomatic infections are mild to moderate while at least 25 percent of total infections are asymptomatic. Severe complications include pneumonia, respiratory distress, arrhythmias, damage to other organs such as liver or kidneys, blood clots (disseminated intravascular coagulation), stroke, encephalomyelitis, and secondary infections. Person over the age of 65 years and those with underlying conditions, such as diabetes, heart disease, or lung disease, are at higher risk of severe or fatal infection. A rare pediatric multisystem inflammatory syndrome has been associated with COVID-19 with symptoms including fever, rash, conjunctivitis, and swelling of the extremities. Risk in pregnancy is unknown.

Duration of infectivity and extent of immunity are uncertain and are being studied. At least short-lived immunity is probably generated, but reinfection may be possible. Several reports from China and South Korea described cases of recurrent SARS-CoV-2 RNA detection (with or without symptoms) among patients who had resolved symptoms, which could represent either re-infection or intermittent viral RNA shedding. Risk of recurrence is unknown.

C. COVID-19 Infection in Washington during the 2020 Pandemic


For Washington case counts, see: https://www.doh.wa.gov/Emergencies/Coronavirus.
For US case counts, see: https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/index.html
For global case counts, see: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/

D. Reservoirs

The precise reservoir for SARS-CoV-2 is unknown but evidence suggests that bats and pangolins may be reservoirs. The related SARS-CoV infects people and several types of animals. Genetic sequencing found the virus causing COVID-19 is most closely related to SARS-CoV so may share its reservoirs. Pet cats and dogs have had documented SARS-CoV-2 infections but no evidence that they transmit the virus to people.

E. Modes of Transmission

Sustained person-to-person transmission has occurred with case clusters in families, social groups, and healthcare settings, particularly long-term care facilities. Based on other coronaviruses, person-to-person transmission is likely primarily through respiratory droplets from coughing or sneezing, but may occur through close personal contact, such as shaking hands or touching an object or surface with the virus on it, and then touching mouth, nose, or eyes. Appropriate PPE should be used for medical procedures creating aerosolized respiratory secretions. Fecal transmission is theoretically possible.
F. Incubation Period

The estimated incubation period is 2-14 days, with a median of 5 days.

G. Period of Communicability

Likely contagious at least 2 days before onset until symptoms improve; asymptomatic cases are communicable. May be PCR positive > 4 weeks but risk for spread is unknown.

H. Treatment

Medical care is supportive, with clinical trials are underway for various therapeutics.

I. Vaccine

Phase III vaccine trials are underway but an effective vaccine is not currently available.

3. CASE DEFINITIONS

A. Case Classification (2020 CSTE)

*Clinical Criteria*
In the absence of a more likely diagnosis:

- At least **two** of the following: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, nausea or vomiting, diarrhea, fatigue, congestion or runny nose OR
- At least **one** of the following: cough, shortness of breath, difficulty breathing, new olfactory disorder, new taste disorder OR
- Severe respiratory illness with at least one of the following: Clinical or radiographic evidence of pneumonia or acute respiratory distress syndrome (ARDS)

*Laboratory Criteria*

Laboratory evidence uses a method approved or authorized (e.g., Emergency Use Authorization) by the U. S. Food and Drug Administrations (FDA) or designated authority.

- Confirmatory laboratory evidence:
  - Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification test

- Presumptive laboratory evidence:
  - Detection of SARS-CoV-2 by antigen test in a respiratory specimen

- Supportive laboratory evidence
  - Detection of specific antibody in serum, plasma, or whole blood
  - Detection of specific antigen by immunocytochemistry in an autopsy specimen

*Epidemiologic evidence – one or more of the following exposures in the 14 days before onset of symptoms:

- Close contact* with a confirmed or probable case of COVID-19 disease; OR
- Member of a risk cohort as defined by public health authorities during an outbreak
*Close contact is generally defined as being within 6 feet for at least 15 minutes. However, it depends on the exposure level and setting; for example, in the setting of an aerosol-generating procedure in healthcare settings without proper PPE, this may be defined as any duration. Data are insufficient to precisely define a duration of exposure that constitutes prolonged exposure and thus a close contact.

Vital Records Criteria:

A death certificate that lists COVID-19 disease or SARS-CoV-2 as an underlying cause of death or a significant condition contributing to death.

**Confirmed Case**

Meets confirmatory laboratory evidence.

**Probable Case**

- Meets clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for SARS-CoV-2.
- Meets presumptive laboratory evidence.
- Meets vital records criteria with no confirmatory laboratory testing performed for SARS-CoV-2.

**Suspect Case**

Meets supportive laboratory evidence with no prior history of being a confirmed or probably case.

### 4. LABORATORY DIAGNOSIS AND SERVICES

**A. Laboratory Diagnosis**

SARS-CoV-2 testing is available from Washington State Public Health Laboratories (PHL), academic and commercial laboratories. PHL uses a Real-time Reverse Transcriptase Polymerase Chain Reaction (rRT-PCR) assay from Centers for Disease Control and Prevention (CDC) to detect SARS-CoV-2 in respiratory specimens. PHL can facilitate shipping of tissue or other specimens to CDC, if indicated (e.g., autopsy specimens).

If a false positive result is suspected, check that the CT (cycle threshold) is not unusually high, have the laboratory evaluate for any obvious signs of contamination, and do repeat PCR testing on the original specimen or as soon as possible on a new sample. If the repeat result is positive, consider it a case. If the repeat test is negative, do a follow-up PCR on an additional sample collected at least 24 hours later. With two consecutive negative tests, consider the original result a false positive.

A repeat positive molecular amplification detection test for SARS-CoV-2 RNA within 3 months of the initial report should not be counted as a new case for surveillance purposes.

Persons with indeterminate or inconclusive results should be retested and should be isolated as though positive until results are available. Also consider the clinical picture.

Note that negative results do not definitively rule out COVID-19. Retest if indicated and suspicion is high, but the person should also complete any recommended quarantine or
self-monitoring. Negative results can occur with asymptomatic persons and tests that are less sensitive; therefore not be safe to assume a person with a negative test is uninfected (https://www.nejm.org/doi/full/10.1056/NEJMp2015897). Negative PCR results in an infected person are more likely for a sample taken before onset of symptoms, early in the symptomatic period, or more than a week after onset. See: https://www.cdc.gov/coronavirus/2019-ncov/community/strategy-discontinue-isolation.html and https://www.acpjournals.org/doi/10.7326/M20-1495

When testing for COVID-19, if symptoms are compatible also consider obtaining a second nasal swab or specimen for rapid flu and viral respiratory panel, or testing for other treatable infections (e.g., bacterial pneumonia, legionellosis, influenza.)

Local health jurisdictions should report to Department of Health possible reinfection for a case who at 90 days or longer from initial PCR-confirmed diagnosis has:

- New symptoms consistent with COVID-19 AND
- New positive PCR for SARS-CoV-2 AND
- Other likely diagnoses ruled out (e.g., negative influenza testing)

Put the person in isolation and ask the laboratory to retain the most recent positive specimen for possible later testing.

B. SARS-CoV-2 Test Types

Diagnostic testing for COVID-19 is changing rapidly. PHL currently performs only PCR for SARS-CoV-2, but many commercial and academic tests are being developed. Test types include nucleic acid amplification test or NAAT (i.e., PCR), detection of antigen (viral protein coat), and serology identifying specific IgM, IgG, or total antibody. It is extremely important to use only tests that have FDA approval or FDA Emergency Use Authorization (EUA), and to understand the test characteristics before using it for clinical care or infection prevention decision-making. Products approved for use may not have specificity and sensitivity information available. See the FDA website for extensive information about various tests for COVID-19: https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-diagnostic-testing-sars-cov-2

For information about antigen testing see:

C. Specimen Collection for PCR

The healthcare provider (HCP) should wear a NIOSH approved and fit tested N95 or higher-level respirator (or facemask if a respirator is not available), eye protection, gloves, and a gown when actively collecting clinical specimens for SARS-CoV-2 testing. When obtaining a specimen, have the patient masked except when taking the specimen and stand to one side of the patient to avoid being directly coughed on or sneezed on.
Refrigerate all specimens at 2-8°C and ship cold for receipt within 72 hours; if exceeding 72 hours holding time, freeze at ≤ -70°C and ship on dry ice. Face mask, eye protection, and gloves should be used when observing a person self-collect a specimen.

**Specimens from Living Patients:**
Acceptable specimens from living patients for testing at PHL include:
- Nasal swab (preferred)
- Nasopharyngeal swab
- Mid-turbinate swab
- Lower respiratory tract fluid (BAL, tracheal aspirate, or sputum) – if intubated

Under observation but not necessarily a healthcare provider, patients may collect a nasal swab, which reduces the need for close contact and use of PPE for a provider. See:


When testing at a commercial or academic laboratory, see that laboratory’s website for instructions for specimen collection and submission.

**Post-mortem Specimens:**
A medical examiner or coroner can submit specimens directly to CDC. Testing at CDC takes at least four to six weeks.

If an autopsy is NOT performed, collect the following post-mortem specimens:
- Only upper respiratory tract swab: nasopharyngeal swab
- Separate NP swab and OP swab specimens for testing of other respiratory pathogens (e.g., rapid influenza testing and respiratory panel – not at PHL)

If an autopsy is performed, collect the following post-mortem specimens:
- Upper respiratory tract swabs: nasopharyngeal swab in viral transport medium tube
- Lower respiratory tract swab: lung swab from each lung in separate viral transport medium tubes
- Separate clinical specimens for testing of other respiratory pathogens and other postmortem testing as indicated
- Formalin-fixed autopsy tissues from lung or upper airway

CDC may request additional specimens, such as serum or stool, in cluster investigations.
D. Shipping

Store and ship specimens at the temperatures indicated above. For details see Coronavirus at:
https://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/PublicHealthLaboratories/MicrobiologyLabTestMenu

Note that PHL require all clinical specimens have two patient identifiers, a name and a second identifier (e.g., date of birth) on both the specimen label and on the submission form. Due to laboratory accreditation standards, specimens will be rejected for testing if not properly identified. Also include specimen source and collection date.

Specimen submission forms should be completed electronically via QRP. To enroll, contact wacovidtest@doth.wa.gov or 206-418-5419. Before submitting more than 50 specimens at a time to PHL call 206-418-5419. Along with the patient and submitter names, include the dates of collection and illness onset, race and ethnicity (providing demographic data specified in Coronavirus Aid, Relief, and Economic Security Act), and patient address and phone. Also make sure there is contact information for the submitter.

E. Free or Low Cost Testing and Testing Reimbursement

Free or low-cost testing is available at several locations, regardless of immigration status: https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/TestingSiteOnlineResources-LHJ.pdf

“Health care providers are not required to confirm immigration status prior to submitting claims for reimbursement. Health care providers who have conducted COVID-19 testing of any uninsured individual … may be eligible for claims reimbursement through the program as long as the service(s) provided meet the coverage and billing requirements.” https://www.hrsa.gov/coviduninsuredclaim/frequently-asked-questions

5. ROUTINE CASE INVESTIGATION

WAC 246-101-017 is an emergency notifiable conditions reporting rule effective 8/6/2020 and in effect for 120 days. The emergency rule:

- Explicitly designates SARS-CoV-2 (COVID-19) as a notifiable condition
- Requires health care providers, health care facilities, laboratories, and local health jurisdictions to report race, ethnicity, and other essential information for cases or suspected cases of COVID-19

Refer to Appendix 1 for case and contact investigations.
Refer to Appendix 2 for outbreak investigations in workplaces other than long-term care settings.

6. INFECTION PREVENTION

A. Infection Control Recommendations in Healthcare Settings

Healthcare facilities have many vulnerable patients due to age, illness, or chronic medical conditions. With ongoing community transmission of COVID-19, a facility should:
• Screen employees daily for COVID-19 symptoms or for having close contact with a COVID-19 case and exclude if symptomatic or a close contact.

• Screen patients/residents for COVID-19 symptoms at admission and at least daily. Immediately isolate symptomatic patients/residents.

• Screen all visitors and others entering the facility for COVID-19 symptoms or for having close contact with a COVID-19 case and exclude if symptomatic or a close contact of a case.

• Make hand hygiene readily available to all patients and employees.

• Follow guidance for cleaning and disinfecting high touch surfaces at least daily.

• Plan for grouping patients with symptoms of COVID-19 (e.g., cohort in rooms or in one area, wing or floor of the facility, assign staff to either affected or non-affected cohorts)

• Face masks or face coverings should be used by everyone in or entering a healthcare facility. Cloth face coverings should NOT be used instead of PPE if more than source control is required. Cloth masks are not sufficient protection to prevent exposure but may reduce transmission. When masks are required, face shields alone are not a substitute for face masks.

• CDC recommends HCP working in facilities located in areas with moderate to substantial community transmission should use eye protection, in addition to a facemask, for all direct patient care.


B. Infection Control Recommendations in Long Term Care Settings

In addition to information in Section A above, see Safe Start for Long Term Care Recommendations and Requirements for details about infection control during different phases of COVID-19 spread in the community. Outdoor visitation of LTC residents is allowed during all phases of reopening (see: https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/LTCOutsideVisit.pdf)

For other resources for Long Term Care see: https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/HealthcareProviders/LongTermCareFacilities

C. Infection Control Recommendations in Outpatient Healthcare Settings


For environmental cleaning see Section 6E.
D. Discontinuation of Transmission–based Precautions in Healthcare Settings

The decision to discontinue transmission-based precautions for patients with confirmed SARS-CoV-2 infection should be made using a symptom-based strategy as described in the CDC guidance link below. The time period used depends on the patient’s severity of illness and if they are severely immunocompromised. Meeting criteria for discontinuation of transmission-based precautions is not a prerequisite for discharge from a healthcare facility.

A test-based strategy is no longer recommended (except unless to discontinue precautions prior to 10 days after symptom onset) because, in the majority of cases, it results in prolonged isolation of patients who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious.


E. Environmental Measures

The approach to environmental cleaning and disinfection for COVID-19 should follow the same principles used for controlling the spread of other infections. High touch areas, including door handles, bathroom fixtures, and railings should be regularly cleaned.

1. Type of Cleaning and Disinfectant Agents

Disinfection for COVID-19 should be performed using a product with an EPA registration number and that targets human coronavirus. See [EPA list N: Disinfectants for Use against SARS-CoV-2](https://www.epa.gov/). Manufacturer recommendations for use-dilution (i.e., concentration), contact time, and care in handling should be followed.

2. Cleaning Methods

Rooms housing COVID-19 patients should be cleaned and disinfected daily and a terminal cleaning and disinfection at the time of patient transfer or discharge.

- Cleaning personnel should wear appropriate PPE.
- Daily cleaning and disinfection should include horizontal surfaces (e.g., over-bed table, nightstand), frequently touched surfaces (e.g., bed rails, phone, bedside table), and bathroom facilities. The area around the patient should be kept free of unnecessary equipment and supplies to facilitate cleaning.
- Terminal cleaning and disinfection following transfer or discharge should include the type of surfaces described above plus obviously soiled vertical surfaces, frequently touched surfaces (e.g. light cords and switches, door knobs), and durable patient equipment (e.g., bed, night stand, over bed table, wheelchair, commode). Curtain dividers also should be changed and laundered as appropriate for the curtain fabric. There is no need to routinely clean and disinfect walls, window drapes, and other vertical surfaces unless visibly soiled; disinfectant fogging for purposes of air disinfection is not recommended.
- Patient care equipment such as mechanical ventilators, pulse oximeters, and blood pressure cuff, should be cleaned and disinfected in accordance with current
CDC recommendations, manufacturer’s instructions, and facility procedures for critical, semi-critical and non-critical surfaces

Cubicles or rooms in outpatient areas where patients with possible COVID-19 are evaluated should be cleaned and disinfected before another patient is seen or cared for in that space. Areas to specifically target for cleaning include the examination table and horizontal surfaces that may have been touched by the patient or healthcare provider.

F. Community-wide Measures

On March 13, 2020, the Washington Governor ordered the first of several community mitigation measures including closing non-essential businesses and banning large gatherings anywhere in the state (concerts, sporting events, social gatherings, and religious services); closure of all K-12 schools public and private statewide through the remainder of the 2019-2020 school year; closing restaurants, bars, and recreational venues; and closing nursing homes to visitors except in life and death situations. A statewide mask requirement, with limited exceptions, was ordered on June 23, 2020 (https://www.governor.wa.gov/news-media/inslee-announces-statewide-mask-mandate). See https://www.governor.wa.gov/office-governor/official-actions/proclamations for other COVID-19 related community measures enacted by Governor Inslee. Cloth masks are not sufficient protection to prevent exposure but may reduce transmission. When masks are required, face shields alone are not a substitute for face masks.


Municipalities may decide separately to close certain facilities (e.g., government offices, libraries, community centers, parks) to the public.


1. Workplace measures

Recommend or require telework. Activate continuity of operations plans (COOP) with a special emphasis on maintaining only mission essential functions. Establish thresholds for workplace closures based on transmission in the workplace.

Mask use in shared public areas was recently required in Washington by a Governor order. Consider measures such as limiting persons entering the business, spacing checkout lines, using cash-less payment, and increasing cleaning of high touch surfaces such as door handles and of bathrooms. For OSHA guidance see:

2. Individual actions

Maintain social distancing. If available, use telework or other options. Practice respiratory etiquette and frequent hand hygiene, particularly when in public areas. When in shared indoor or outdoor common areas (e.g., office, store, apartment hallway, elevator, public transportation, crowded park) wear a cloth face covering to prevent potential transmission but also maintain a distance of 6 feet from others. When outdoors, a mask is not needed if sufficient spacing is possible.

If fever or cough or other symptoms of COVID-19 develop, stay home. Keep separate from others in the household (if possible, having a separate sleeping area and bathroom) and avoid sharing household items such as dishes, towels, or bedding. If seeking healthcare, call the provider before visiting and report any fever or respiratory symptoms.


G. Travel Measures


There may be arrival restrictions for non-citizens from affected countries.

Travelers arriving from international travel who are ill should be reported to a CDC Quarantine Station by flight crew or Customs and Border Protection through established protocols. CDC Quarantine Station will coordinate with DOH and the LHJ of residence regarding follow-up of acutely ill travelers identified at entry.

CDC is recommending investigations of contacts if a passenger was symptomatic during or shortly after a flight. When feasible, include monitoring of asymptomatic contacts for 14 days. A contact developing symptoms should be isolated and be medically evaluated. At 14 days, contacts should have a final interview to assure they remained asymptomatic.

7. MANAGING SPECIAL SITUATIONS

A. Cluster in Long-term Care or Other Congregate Living Setting

For overall recommendations see: https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/HealthcareProviders/LongTermCareFacilities
A single case of COVID-19 among residents or staff of a long term care facility or other congregate living setting should be considered an outbreak. (For the full definition see: https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/InterimCOVID_LTCFOutbreak.pdf). Immediately implement appropriate infection prevention measures, identify potentially exposed contacts for quarantine and monitoring, and investigate the source of the infection. The facility should notify appropriate regulatory agencies.

Keep COVID-19 from entering your facility:

- Restrict all visitors except for compassionate care situations (e.g., end of life). Restrict all volunteers and non-essential healthcare personnel (HCP), including consultant services (e.g., barber, podiatry, etc.).
- Actively screen all HCP before starting their shift for fever and respiratory symptoms, or for close contact with a COVID-19 case; if they are ill arrange testing and send them home, if they are a close contact instruct them in quarantine and send home.
- Cancel all field trips outside of the facility.
- Have residents who must regularly leave the facility for medically necessary purposes (e.g., residents receiving hemodialysis) wear a facemask whenever they leave their room, including for procedures outside of the facility.

Identify Exposures:

- If you identify a COVID-19 infection in your facility take steps to identify potentially exposed family members and other visitors and notify them of the exposure and need to quarantine. Share this document: https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVIDexposed.pdf
- If staff have identified high or medium risk exposures (see: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html) consider exclusion from work for 14 days or, if staffing is limited, having exposed staff wear a mask while working for 14 days after the last medium or high risk exposure, where PPE resources allow.

Identify infections early:

- Screen employees daily for COVID-19 symptoms or close contact with a COVID-19 case and exclude if symptomatic or if a close contact; immediately isolate anyone who is symptomatic.
- Any staff who develop symptoms should be excluded from work immediately (https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html)
- Based on investigation findings, consider testing staff and residents more broadly to identify asymptomatic cases who may be contagious. Particularly in high risk settings, widespread testing may be necessary to halt transmission.

Prevent spread of COVID-19:

- Cancel all group activities and communal dining.
• Enforce social distancing among residents.
• Implement universal cloth face mask use by everyone (source control) when they enter the facility.
• All HCP should be reminded to practice social distancing when in break rooms or common areas.
• Have HCP wear all recommended PPE for all resident care, regardless of whether the resident has symptoms. Refer to strategies for optimizing PPE when shortages exist. [https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html)

Assess supply of personal protective equipment (PPE) and initiate measures to optimize current supply:
• For example, extended use of facemasks and eye protection or prioritization of gowns for certain resident care activities. See: [https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html)

Identify and manage severe illness:
• Facility should monitor ill residents (including documenting pulse oximetry) at least 3 times daily to quickly identify residents who require transfer to a higher level of care.

B. Definitions for Clusters Not in a Healthcare Setting

For investigation of workplace or community clusters see Appendix 2.

**Workplace or event cluster/outbreak not in a healthcare setting or general community:**
• Two or more confirmed or probable cases with at least one confirmed case, **AND**
• At least two cases have onsets within 14 days of each other, **AND**
• Plausible epi-link in the workplace or site (e.g., case-patients work on the same shift or in the same building, use employee sponsored transportation or housing), **AND**
• No other known epidemiological link outside of the workplace/site (e.g., case-patients do not share a household, and there is no epi-link or close contact such as private carpooling or social interactions outside of the workplace).

**Community cluster/outbreak:**
• Five or more confirmed or probable cases with at least one confirmed case, **AND**
• Plausible epi-link in a setting not a workplace and not a household (e.g., at a common event or venue) and not close contacts, **AND**
• Cases had contact with each other for a period shorter than 2 days

C. Protecting persons experiencing homelessness

Persons experiencing homelessness may have more difficulty maintain social distance when unsheltered, may have health conditions putting them at higher risk, and may access services for meals or shelters that are offered in congregate settings. Shelter should have plans for sheltering or transferring persons with compatible symptoms or confirmed cases. Shelter providers should address physical barriers and spacing in shared areas, spacing in meal
service areas (or deliver or arrange take away), spacing sleeping areas 6 feet apart and sleeping alternating head to toe.

Testing in shelters and encampments should be considered for symptomatic persons, persons who are asymptomatic with known exposure, and no exposure but risk factor. When there is higher community transmission, increase access to testing.

One approach to control is location–based contact tracing. Identify high risk locations when taking specimens for testing (ask locations/contacts at time of testing) and from interviews of positive cases. Rapid turn-around time for testing is critical.

CDC resources:


D. Positive Test for a Healthcare Worker

When a healthcare worker tests positive for COVID-19, perform an investigation to identify potential exposures of residents and other facility personnel. The contagious period starts two days before symptom onset until the person was isolated. Notify exposed people without naming the identity of the infected person. Consider sharing this document:

For return to work recommendations see current CDC guidance:

ADDITIONAL RESOURCES

Guidance for Healthcare Providers

Guidance for Businesses and Other Sites

Washington State: Essential business guidance, Phase 1-3 business activity guidelines:

Washington essential workers in healthcare settings, public safety or other critical infrastructure:
https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20%28Final%29.pdf
Recommendations (general, businesses and workers, school, childcare, and farm and agricultural workers):
https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020COVID19/Resources andRecommendations

Centers for Disease Control and Prevention (CDC) has prepared guidance materials for multiple settings including workplaces, schools, child care, colleges, and gatherings and community events: https://www.cdc.gov/coronavirus/2019-ncov/community/index.html

Guidance for Public Queries

Some of the documents below are available in multiple languages:
https://www.doh.wa.gov/Emergencies/NovelCoronavirusOutbreak2020/HealthEducation
ACKNOWLEDGEMENTS

This document was created from information from the Centers for Disease Control and Prevention: https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html

UPDATES

May 2020: document created

June 5, 2020: Appendix 2 added

June 16, 2020: LTC outbreak definition expanded to include single case among resident or staff

July 26, 2020: added symptoms and complications; added comments of use of cloth masks in the definition of a close contact and in Appendices; self-collection of nasal swabs allowed without medical provider observation; added information for sources of free or low cost testing; added information about homelessness; changed return to work criteria; updated discontinuation of transmission-based precautions in healthcare settings; limited contact tracing for Probable cases to household members; ending isolation and quarantine added to Appendix 1 Section D; expanded Appendix 2

August 13, 2020: case definition (Section 3) includes new olfactory disorder or new taste disorder as a consistent symptom, case definition includes presumptive laboratory evidence as antigen test in respiratory specimen, case definition includes antibody test or detection of antigen by immunocytochemistry in autopsy specimen as supportive laboratory evidence, presumptive laboratory evidence (positive antigen) alone is sufficient for a Probable classification, case definition epi linkage no longer includes travel or residence to an area with sustained ongoing transmission; added specific approach for a suspected false positive result (Section 4A); added details about reinfection (Section 4A); includes new reporting requirements in WAC 246-101-017 (Section 5); updated ending transmission-based precautions (Section 6B); updated recommendations for ending isolation (Appendix 1 Section D)

August 25, 2020: case definition (Section 3) includes new olfactory disorder or new taste disorder as a consistent symptom, case definition includes presumptive laboratory evidence as antigen test in respiratory specimen, case definition includes antibody test or detection of antigen by immunocytochemistry in autopsy specimen as supportive laboratory evidence, presumptive laboratory evidence (positive antigen) alone is sufficient for a Probable classification, case definition epi linkage no longer includes travel or residence to an area with sustained ongoing transmission; expanded case investigation for a Probable case with an antigen positive test results to be the same as for a Confirmed case; CDC dropped the recommendation that returning international travelers have a 14 day quarantine period.
APPENDIX 1: CASE AND CONTACT INVESTIGATION

Purpose
The purpose of this appendix is to provide common expectations for the response to cases (confirmed, probable and suspect) of COVID-19 and their contacts.

A. Case Investigation

Who: Confirmed Case

When: Initiate case investigation within 1 day of notification of positive laboratory test report or death report. Note: Initiation is measured using the “Investigation Start Date” field in WDRS and should reflect the date the first public health action was initiated for the case.

Process:

- Complete a case investigation within 1 day of notification of a positive lab test or of a COVID-related death reported to the health department. Many factors may influence a LHJs’ ability to complete a case investigation within this timeframe (e.g., receipt of complete contact information at time of notification, case/proxy availability).

- Complete a case investigation interview using the DOH centralized technology system (CTS), WDRS, or an alternative method.

- Use of the CTS is preferred. If a system other than the CTS is used, all essential variables are required to be entered or imported into WDRS within 24 hours of completing the case interview. Note that data entered into CTS does not need to be entered into WDRS.

- Interview each case or their proxy if appropriate (death, severe illness, <18 years old).

- A professional interpreter or fluent bilingual staff member should always be used if the case is not comfortable completing the interview in English.

- Confirm that infection prevention measures are in place if the case is in a healthcare facility or congregate setting, particularly long-term care.

- All confirmed cases should be investigated. Prioritize investigation of cases who are:
  - Hospitalized or deceased
  - Essential workers in healthcare settings or public safety or other critical infrastructure (for details see: https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20%28Final%29.pdf)
  - Part of a cluster of illnesses, particularly in a congregate setting such as a healthcare facility or institution (e.g., long-term care, mental health, rehab, school, dialysis unit, corrections, shelter). See Appendix 2 for non-healthcare setting outbreaks.

- Gather other important information:
  - Obtain information about work or school attendance
- Ask key symptoms: onset date and first symptom(s), fever and highest measured temperature, cough, and pneumonia
- Determine if pregnant (for women of reproductive age)
- Determine severity of illness (i.e. hospitalized, admitted to ICU) or if fatal
- Ask about travel and about work in or visit to a high risk congregate setting during exposure and contagious periods
- Determine if person is part of a cluster, particularly in a congregate setting
- Ask about possible transmission in a congregate setting. If such a setting is identified, determine if infection prevention measures are in place.
- For fatal or severe cases, if available use electronic records to determine chronic medical or other predisposing conditions

- A minimum of three phone contact attempts should be made at least 4 hours apart. In addition, at least 1 text message should be sent.
- If contact by phone is not successful, an in person visit by trained local staff may be considered to facilitate the interview. Note: appropriate PPE and safety measures must be taken for in person visits.
- Provide health education regarding COVID-19, infection prevention and isolation requirements, following “What to do if you have confirmed or suspected coronavirus disease (COVID-19)”
- Assess all cases for referral to case management regarding needs for groceries, medications, personal care items, etc.
- Document an acknowledgement of agreement to home isolate (e.g., email or text confirmation, or other form of agreement).
- Following interview completion, send a text, email or written letter with “What to do if you have confirmed or suspected coronavirus disease (COVID-19)”
- Ensure a daily touch base; consider enrollment in a text monitoring system for duration of isolation.
- See Section D for ending isolation

**Who:** Probable Case*

**When:** Initiate a case investigation within 1 day of health department awareness of known probable cases

**Process:**
- A probable case based on a positive result for an antigen test should be investigated in the same way as a confirmed case.
- The process for any other probable case investigation is the same as for a confirmed case but with the contact investigation limited to household and other intimate contacts. In a
long term care setting, this would include those sharing a bedroom, bathroom, or dining room table.

*Applicable to cases meeting probable definition through an epi-link and compatible symptoms or through a death certificate.

**Who: Suspect Case**

**When:** Initiate case investigation as local health jurisdiction resources permit

**Process:**

- As local health jurisdiction resources allow, initiate case investigation following receipt of a positive serologic test result being reported to the health department
- Complete a case investigation interview using the DOH centralized technology system (CTS) or WDRS and determine if the individual meets probable case definition per CSTE.
- Depending upon the case’s onset date, public health actions including isolation and contact investigation, may no longer be appropriate.
- If an individual has previously been investigated as a probable or confirmed case, there is no need to initiate additional investigation upon receipt of a serology result.

**B. Contact Investigation**

**Who:** All contacts of confirmed cases and all contacts of probable cases with a positive antigen test

**When:** Initiate a contact investigation within one day of notification of status as a contact.

**Process:**

- According to CDC, “A person who has clinically recovered from COVID-19 and then is identified as a contact of a new case within 3 months of symptom onset of their most recent illness does not need to be quarantined or retested for SARS-CoV-2. However, if a person is identified as a contact of a new case 3 months or more after symptom onset, they should follow quarantine recommendations for contacts.” [https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html](https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html) 7/21/2020
- For symptomatic cases, starting two days before the case’s first symptom until isolation, ask the case for a list of all contacts and locations where the case spent time. Record each contact name, phone number and age category.
- For asymptomatic cases, starting two days before the case’s specimen collection date until isolation, ask the case for a list of all contacts and locations where the case spent time. Record each contact name, phone number and age category.
- Close contact is defined as a) being within 6 feet of a person for at least 15 minutes, or b) having unprotected direct contact with infectious secretions or excretions of the person with COVID-19. Any duration should be considered prolonged if the exposure occurred during performance of an aerosol generating procedure unless appropriate medical PPE
was used. Use of a cloth face mask does not protect against exposure or eliminate the need for quarantine. Use of full medical PPE including face mask and face shield by an infected person may not protect against exposure for others, see CDC guidance for risk assessment for healthcare personnel. Examples of close contact include:

- Caring for, living with, visiting, or sharing a healthcare waiting area or room with a confirmed COVID-19 case while not wearing recommended personal protective equipment
- Having direct contact with infectious secretions (e.g., being coughed on) while not wearing recommended personal protective equipment.
- Note that transient interactions, such as walking by a person with COVID-19, are not thought to constitute an exposure

- Use the DOH COVID-19 Contact Investigation Form to evaluate contacts or the DOH CTS tool for contacts.

- Household contacts should be assessed and followed-up on at the time of the case interview, whenever possible. If it is not possible to reach them at the time of case interview, contact should be initiated within one day of identification

- Non-household contact investigation should be initiated within one day of identification

- Use the CTS to conduct the contact interview. Alternatively, data should be entered or rostered into the CTS within 24 hours of completing the contact interview.

- Collect key variables including identifiers, contact information, occupation, etc. and assess for symptoms for each contact

- A professional interpreter or fluent bilingual staff member should always be used if the person is not comfortable completing the interview in English.

- A minimum of three phone contact attempts should be made at least 4 hours apart. In addition, at least 1 text message should be sent.

- If contact by phone is not successful, an in person visit by trained local staff should be considered to facilitate the interview. Note: appropriate PPE and safety measures must be taken for in person visits.

- Assess all contacts for referral to testing and case management.

- If contact is symptomatic:
  - Treat this individual as a probable case and complete the probable case investigation process.
  - Explain health education regarding COVID-19, infection prevention and quarantine per “What to do if you have confirmed or suspected coronavirus disease (COVID-19).”
  - Connect to testing. Explain that a negative test cannot rule out COVID-19 infection.
o Ensure a daily touch base; consider enrollment in a text monitoring system for duration of isolation.

o Document an acknowledgement of agreement to home isolate (e.g., email or text confirmation, or other form of agreement).

- If contact is asymptomatic:
  o Provide health education regarding COVID-19, infection prevention and quarantine per “What to do if you were potentially exposed to someone with confirmed coronavirus disease (COVID-19)”
  o Following interview completion, send a text, email or written letter with What to do if you were potentially exposed to someone with confirmed coronavirus disease (COVID-19)”
  o Consider testing, particularly if drive-through or similar no-contact specimen collection is available. Collect specimens relative to the person’s exposure and incubation period. Ideally test at least 5-7 days from last exposure and not sooner than 48 hours after first exposure; if more than 14 days have elapsed since last exposure testing is not needed. Explain that a negative test cannot rule out COVID-19 infection and does not affect duration of quarantine. Public health guidance regarding handling of a contact who tests negative for COVID-19 and positive for another agent such as influenza is pending.
  o Ensure a daily touch base; consider enrollment in a text monitoring system for duration of isolation.
  o Document an acknowledgement of agreement to home quarantine (e.g., email or text confirmation, or other form of agreement).
  o See Section D for ending quarantine

Who: Household and other intimate contacts of probable cases without a positive antigen test

When: Initiate a contact investigation within one day of notification of status as a contact. For probable cases without a positive antigen test, only household and other intimate contacts are routinely investigated, except in special circumstances.

Process:

- Household and other intimate contacts should be assessed and followed-up on at the time of the case interview, whenever possible. If it is not possible to reach them at the time of case interview, contact should be initiated within 24 hours of identification.

- Starting two days before the case’s first symptom, ask the case for a list of all household contacts. Record each contact name, phone number and age category.

- Use the DOH COVID-19 Contact Investigation Form to evaluate contacts or the DOH CTS tool for contacts.
• Use the CTS to conduct the contact interview or enter the data into the CTS within 24 hours of completing the contact interview.

• Collect key variables including identifiers, contact information, occupation, etc. and assess for symptoms for each contact

• A professional interpreter or fluent bilingual staff member should always be used if the person is not comfortable completing the interview in English.

• If a household contact is not available at the time of case interview, a minimum of three phone contact attempts should be made at least 4 hours apart. In addition, at least 1 text message should be sent.

• If attempt to reach by phone is not successful, an in person visit by trained local staff should be used to facilitate the interview. Note: appropriate PPE and safety measures must be taken for in person visits.

• Assess all close contacts for referral to case management.

• If close contact is symptomatic:
  o Treat this individual as a probable case and complete the probable case investigation process. Since this new case was a household contact of a probable case, only household contacts would be investigated and should generally be the same as for the original probable case.
  
  o Provide health education regarding COVID-19, infection prevention and quarantine per What to do if you have confirmed or suspected coronavirus disease (COVID-19).
  
  o Connect to testing. Explain that a negative test cannot rule out COVID-19 infection and does not affect duration of quarantine. Collect specimens relative to the person’s exposure and incubation period. Ideally test at least 5-7 days from last exposure and no sooner than 48 hours after first exposure; if more than 14 days have elapsed since last exposure testing is not needed.
  
  o A contact with a positive COVID-19 PCR test result becomes a new confirmed case.
  
  o Ensure a daily touch base; consider enrollment in a text monitoring system for duration of isolation.
  
  o Document an acknowledgement of agreement to home isolate (e.g., email or text confirmation, or other form of agreement).

• If close contact is asymptomatic:
  o Provide health education regarding COVID-19, infection prevention and quarantine per What to do if you were potentially exposed to someone with confirmed coronavirus disease (COVID-19)
  
  o Testing is recommended for all close contacts of COVID-19 cases. Collect specimens relative to the person’s exposure and incubation period. Ideally test at least 5-7 days from last exposure and no sooner than 48 hours after first exposure; if more than 14 days have elapsed since last exposure testing is not needed. Explain that a negative
test cannot rule out COVID-19 infection and does not affect duration of quarantine. Public health guidance regarding handling of a contact who tests negative for COVID-19 and positive for another agent such as influenza is pending but currently an alternative diagnosis does not affect the duration of quarantine.

- Following interview completion, send a text, email or written letter with What to do if you were potentially exposed to someone with confirmed coronavirus disease (COVID-19)
- Ensure a daily touch base; consider enrollment in a text monitoring system for duration of isolation.
- Document an acknowledgement of agreement to home quarantine (e.g., email or text confirmation, or other form of agreement).
- See Section D for ending quarantine

C. Individuals being tested, pending results

Who: Individuals being tested, pending results

When: At time the person seeks clinical specimen collection for testing, the clinician will provide information on isolation and quarantine to the patient.

Process:

- Physicians should provide information on isolation and quarantine to patients at the time of testing. An individual being tested should notify their household contacts of potential exposure and recommendation to quarantine. Contacts should self-monitor and seek testing and care if symptoms develop. Distribute adequate guidance to the household contacts, link below.

  What to do if you were potentially exposed to someone with confirmed coronavirus disease (COVID-19).

- If the test result is positive, then follow the confirmed case and contact process above including non-household contact investigation.

D. Ending isolation and quarantine


Patients with mild to moderate illness (no shortness of breath, no abnormal chest imaging) who are not severely immunocompromised can end precautions and return to normal activities including work when:

- At least 10 days have passed since symptom onset AND
- At least 24 hours have passed with no fever without fever-reducing medication AND
- Symptoms have improved

An asymptomatic case who is not immunocompromised can end isolation after:
At least 10 days since after the date of the first specimen was taken that tested positive

Persons with severe to critical illness or who are severely immunocompromised* can end precautions and return to normal activities including work when:

- At least 20 days have passed since symptom onset AND
- At least 24 hours have passed with no fever without fever-reducing medication AND
- Symptoms have improved

Severely immunocompromised* persons who were asymptomatic throughout their infection can end precautions and return to normal activities including work when at least 20 days have passed since the date of collection of their first positive viral diagnostic test.

The healthcare provider determines if a person is severely immunocompromised. A healthcare provider or a local health jurisdiction can provide a return to work letter.

*Severe immunocompromised includes currently receiving chemotherapy for cancer, untreated HIV infection with CD4 count < 200, combined primary immunodeficiency disorder, or receipt of prednisone >20mg/day for more than 14 days.


A contact who remains asymptomatic can end quarantine 14 days after the last contact with a person contagious with COVID-19. If a case has not been able to isolate from the household members, they start their quarantine 14 days from the end of the case’s isolation period.
APPENDIX 2: WORKPLACE CLUSTER INVESTIGATIONS – NON HEALTHCARE

Purpose
The purpose of this appendix is to guide local health jurisdiction investigations of clusters or outbreaks of COVID-19 that may be associated with a specific facility other than long-term care setting, including evaluation of cases of COVID-19 and their contacts. Goals are to identify and evaluate close contacts of a case and to review COVID-19 control measures in the facility.

Decisions about investigating cases and interventions for day care settings and K-12 school outbreaks are still in flux as of July, 2020. Closure for a single case in a child care setting may be appropriate in order to conduct thorough cleaning and disinfection of a classroom or a building, depending on the age of the case and the control measures in place during the contagious period.

Cluster in a Commercial, Governmental, or Community Setting
For definitions see Section 7B.

For overall Labor & Industry recommendations see: https://www.lni.wa.gov/safety-health/safety-topics/topics/coronavirus

Confidential L&I consultations are available: https://www.lni.wa.gov/safety-health/preventing-injuries-illnesses/request-consultation/

At initial notification of an outbreak the local health jurisdiction should report the following to DOH:

- Two or more confirmed or probable COVID-19 cases in a commercial, government or community setting at least one of which is confirmed (confirmed is PCR test positive) AND
- At least two of the cases have onsets within 14 days of each other AND
- Plausible epidemiological evidence of transmission in a shared location (e.g., workplace, congregate living setting, event) and no evidence of transmission outside the shared location (e.g. private carpool, shared private housing); excludes household and other small clusters AND
- No other known epidemiological link outside of the workplace (e.g., case-patients do not share a household, and there is no epi-link suggesting transmission is more likely to have occurred during activities such as private carpooling or social interactions outside of the workplace).

A single case in a workplace or community setting might be investigated under certain circumstances. A confirmed case who was physically at the setting while contagious will be investigated for potential close contacts at the setting even if the exposure did not occur there and even if an outbreak is not suspected.

Consider prioritizing investigations involving: five or more close contacts (co-workers or clients,) high density workforce or clients, vulnerable or restricted populations involved (higher risk of severe disease, socially disadvantaged, incarcerated), concern about workplace prevention measures, or previous outbreak at the facility. For such situations consider immediately implementing appropriate infection prevention measures and initiating
an investigation to determine if the infection was acquired in the facility. Notify appropriate regulatory agencies.

An outbreak can be considered over if there is no evidence of continued transmission within the facility. This is measured as 28 days after the latest date of onset in a symptomatic person or the latest date of specimen collection in an asymptomatic person, whichever is later.

In this Appendix “Employer/Organizer” indicates the main point of responsibility for a facility or event, even if there are no paid workers. “Worker/client” indicates an employee, volunteer, client, resident attendee, student, or others affected by the site or event.

**Outbreak notification**

Initial report of a potential outbreak can be based on interviews, positive test result from a specific location, worker report, call from a facility, etc.

When DOH receives a report

- Confirm the cluster is entered in WDRS or offer to start the entry
- Determine any necessary immediate notifications
  - State health officers and PIOs (local, state, other) if high profile
  - Other agencies with licensing or other oversight

**Determine responsibilities**

1. Designate the lead agency (LHJ, Tribe, DOH) and required stakeholders (e.g., regulatory or supporting agency). Set up a joint investigation, if appropriate. Decide if the outbreak will be investigated by telephone or in person (the decision may change)

2. Virtual technical guidance may be available from national or state agencies.

3. Assemble a team which may include:

   - Affected local health jurisdiction(s) – communicable disease, environmental health, health officer, PIO
   - DOH – communicable disease, environmental health

**Start a case investigation**

1. The DOH COVID-19 outbreak form is available to record information ([https://www.doh.wa.gov/Portals/1/Documents/5100/420-033-ReportForm-COVID19-Outbreak.pdf](https://www.doh.wa.gov/Portals/1/Documents/5100/420-033-ReportForm-COVID19-Outbreak.pdf)). Only the yellow highlighted fields are essential for entry. The second page of the form is for optional use by the local health jurisdiction to assess whether the site has control measures in place.

2. Begin a case line list

3. Tell the confirmed case(s) who worked while contagious that the employer/organizer needs to be informed

   - If the case interview is incomplete, refer for full case interview
• Provide any worker/client testing positive with guidance documents and inform them of restrictions from work for 24 hours after fever is gone and symptoms have improve and at least 10 days have passed since symptoms first appeared

• A symptom and time based strategy is recommended for return to work. In rare cases, a test based strategy has been used but persistent positive results can be a challenge. [https://www.cdc.gov/coronavirus/2019-ncov/community/strategy-discontinue-isolation.html]

• Provide identified cases with any needed isolation facility or any other assistance with needs during isolation

**Contact the employer/organizer**

1. Use the optional COVID-19 outbreak form (page 2) or another form

   • Employer cooperation with an investigation is required through a Governor’s proclamation, Labor and Industry rules, and notifiable conditions regulations. If needed, obtain a local health officer order to get employer/organizer cooperation.

   • Record main contact person with phone and email

   • Ask if employer/organizer was notified of the case

   • Ask if employer/organizer is aware of other potential or confirmed cases


   • Notify the employer if there is a regulatory responsibility to report

   • Determine if the person is an essential worker in a critical infrastructure sector ([https://www.governor.wa.gov/sites/default/files/WA%20Essential%20Critical%20Infrastructure%20Workers%20%28Final%29.pdf])

   • Until sufficient capacity exists to follow up with every employer, a public health agency may work with large employers so they can do their own contact tracing and notifications in a timely manner. If partnering in this manner, consider:
     • The employer’s contact tracing procedures have been reviewed
     • The public health agency has confidence in the employer’s capacity and integrity in performing contact tracing
The public health agency and employer agree on timely sharing of a list of exposed contacts

The public health agency has approved the information that is provided by the employer to exposed contacts

2. Determine if additional steps will be done remotely or if a site visit is warranted. Notify Washington Department of Labor and Industries if there is a non-compliant workplace (Venetia Runnion, runv235@LNI.WA.GOV) or if employees are in imminent danger (runv235@LNI.WA.GOV and Covid19@lni.ea.gov).

3. Determine the work processes at the worksite/event site that involved the case

4. Determine COVID-19 control practices already in use (work flows, facility redesign)
   a. The second page of the COVID-19 outbreak form COVID-19 Outbreak form is an optional resource for local health jurisdictions to evaluate the infection prevention measures with the employer/organizer
   b. If controls are insufficient, temporary closure may be necessary for cleaning, disinfection, and improvement in control measures.
      i. General cleaning and disinfection for facilities:  
      ii. For childcare cleaning see: 
      iii. For K-12 cleaning see: 

5. Map out the worksite/event site location and layout while the case was contagious – this may involve a site diagram/floor plan
   - Consider a video or other remote visit
   - If conducting a site visit, follow safety measures for the inspector
   - Request records that could include job task descriptions, worker rosters during the exposure period, shift schedule, attendance records
   - Ask description of tasks and work processes for the case
   - Determine typical numbers of onsite employees/clients and if any subgroups are naturally cohorted (e.g., separate building with separate entry and break area)
   - If possible, initiate strict separation of exposed and unexposed cohorts
   - Determine others who enter the workplace such as contractors, deliverers, visitors
   - Determine risk to general public
- Determine any special groups at risk or vulnerable populations
- If there are out-of-jurisdiction cases and contacts, determine which agency will take responsibility for those persons and transmit information as needed

**Identify close contacts**

1. Close contact is defined as a) being within 6 feet of a person for at least 15 minutes, or b) having unprotected direct contact of any duration with infectious secretions or excretions of the person with COVID-19.

2. Do not identify the case to those being evaluated as contacts

3. Based on case onset date (contagious two days before onset) and actual work schedules of the case and contacts, with the case and employer/organizer determine:
   - Coworker contacts based on exposures from work area, shared tasks, changing rooms, break area, and carpooling for each shift worked while contagious
   - Non-worker contacts related to the facility (e.g., visitors, contractors, public interactions, public waiting area) for each shift worked while the case was contagious

4. Develop a roster of all potential close contacts (exposed ≤ 6 feet for ≥ 15 minutes during work, meals, breaks, or travel)
   - In addition to co-workers, include contractors, clients and customers

5. Employer/organizer should provide for each close contact: name, phone, email, address, and last exposure to case; a full list of workers may be another option

6. Refer close contacts for full contact interview (close contact is 15 minutes or longer within 6 feet of a contagious COVID-19 case)
   - Verify workplace exposure and related exposures (e.g., carpool to work)
   - Identify potential non-workplace exposures (e.g., housing with coworkers, socializing, public transportation)
   - May need to arrange testing for an uninsured person or for the worksite group (see below for testing details)
   - If any contacts are symptomatic initiate a case investigation (an symptomatic close contact is a probable case) and advise testing
   - Also advise testing of asymptomatic contacts. Inform them of a 14 day quarantine from last exposure regardless of test results; there is an exception for essential workers in critical infrastructure who may work with precautions but otherwise remain in quarantine (see below: Providing technical assistance #4)
   - Provide identified close contacts with any needed quarantine facility or any other assistance with needs during quarantine

7. Consider a general notification to customers or clients if they had potential exposure, such as being briefly close to a case who wore a mask. Cloth masks are not sufficient
protection to prevent exposure. A letter notification can state that the risk is low but the customer should self-monitor for symptoms during the 14 days after exposure.

8. Consider mass testing of workers/clients or closure for a workplace with an outbreak. Base the decision on the number of cases, the attack rate, vulnerable populations at risk, and existing control measures.

**Provide technical assistance**

1. Employers/organizer are encouraged to identify a central point of contact who will 1) work with public health receive information and follow up as needed, and 2) serve as a point of contact to track workers/clients reporting suspected or confirmed cases. All workers/clients should know how to reach the point of contact.

2. Recommend appropriate cleaning and disinfection of the affected parts of the facility (e.g., production line, bathroom, break room) after the case has left the site. Usually the facility does not need to be shut down. If it has been less than 7 days after the sick employee was in the facility, close off any areas or shared equipment used for long periods of time by the person and wait 24 hours before cleaning and disinfecting; if not feasible wait as long as possible. During the period, if possible open windows and outside doors to increase air circulation in the area. See: https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html

3. Discuss with employer/organizer whether there are sufficient workers to open and operate the facility safely

4. In critical workforce sectors, exposed essential workers without symptoms may continue working according to CDC guidance and the DOSH directive (https://lni.wa.gov/safety-health/safety-rules/enforcement-policies/DD170.pdf), as long as the employer agrees that the person is required to maintain operations and the following measures are in place in the worksite to minimize the risk of transmission in the worksite:
   a. Daily screening at work for symptoms or for having close contact with a COVID-19 case
   b. Cloth face coverings or masks are used by all workers
   c. Physical distancing measures are in place
   d. Cleaning/disinfection of the workspace occurs per state guidance
   e. Lack of adequate workforce otherwise
   f. Note that the worker is otherwise still in quarantine, which means using private transportation to the workplace and self-quarantining at home except when at work or in transit to and from work

5. If the business is not considered critical infrastructure, an asymptomatic contact who never develops symptoms should be in quarantine for 14 days from last exposure before returning to work and provided with guidance. If symptoms develop, the person should be tested and follow isolation guidance.

Institute infection prevention measures

1. Evaluation steps may include:
   - Ensure sufficient ventilation and as possible increase flow of outside air
   - Conduct a hazard assessment to identify any areas with high risk for COVID-19 transmission
   - Identify work and common areas where employees could have close contact
   - Develop plans to communicate with all workers and outside contractors

2. Control measures may include:
   - Verify that no persons in isolation (i.e., a case) enter the workplace
   - Limit entry to only necessary workers/clients and put signage at the entry
   - Pre-screen at entry:
     - Staff doing screening should use PPE
     - Use no-touch device to measure each person’s temperature (set alarm to 99°F)
     - Prior to each shift assess for fever, respiratory symptoms, vomiting, or diarrhea, or any other associated symptom that is unexplained, and assess whether there was close contact with a COVID-19 case
     - Any close contact should go into home quarantine regardless of symptoms. With employer agreement, asymptomatic essential workers may be able to work but otherwise remain in quarantine
   - If appropriate, have signs in parking area and at entry points asking visitors to phone ahead
   - Regular monitoring: the worker should self-monitor under the supervision of their employer’s occupational health program
   - If there are long shifts, consider rescreening temperatures at break time
   - Mask: at all times in the workplace the worker/client should wear a face mask provided or approved by the employer/organizer; consider if goggles and a face shield are also appropriate; the employer/organizer should provide education in correct use of PPE
   - Physical distance: The worker should maintain 6 feet distancing as work duties permit and during breaks; if not feasible there should be easily disinfected barriers between workers as well as ventilation measures
• Provide access to hand cleaning materials including hand sanitizing stations near high trafficked areas and disposable wipes

• Initiate other measures such as single entry point, signage (entry, bathroom, break area), staggered shifts and breaks, spaced furniture and work stations, rearranged break area and communal seating, additional break areas, marked distancing on the floor and marked blocked off areas (e.g., signs, tapes, decals), other cohorting of workers to separate exposed and unexposed groups, increased hand hygiene options, multilingual education, and policies to promote or expand sick leave

• Cancel in-person meetings, group activities, and non-essential trips

• Ask workers not to shake hands or make contact with each other or with visitors

• Advise no sharing of headsets, phone, food, drinks, coffee pots, bulk snacks

• Consider excluding vulnerable workers/clients at higher risk for serious illness from being physically present in workplaces/facilities until 28 day shave passed from the date of symptom of the last known case associated with the cluster

• Clean and disinfect: routinely clean and disinfect all areas such as common areas, offices, bathrooms; after each use clean surfaces and any shared tools, electronic devices, copiers, rails, door handles, and other equipment; tips: block off areas or use tape to mark 6 feet; have cards with green and red sides that worker turns after use to show need for cleaning a shared area; remove fans to prevent cross-currents

• Have a plan for an worker/client becoming symptomatic at the worksite or event site (i.e., remove from the workplace immediately, consider closing part of the worksite or event site, arrange testing for the worker/client)

• If the employer/organizer provides transportation, actions should be taken to prevent spread of COVID-19

• If the employer/organizer provides housing, actions should be taken to prevent spread of COVID-19 in the housing

• Provide workers/clients with educational materials in appropriate languages and formats (e.g. pictures, pictograms, or videos)

3. Governor’s guidance for reopening a particular type of business may suggest additional control measures. Also see: https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html


Determine testing needs

1. Strongly encourage symptomatic workers/clients to get tested. Free or low-cost testing is available at several locations, regardless of immigration status:

   https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/TestingSiteOnlineResources-LHJ.pdf
2. If appropriate, arrange testing to identify additional cases among contacts and coworkers. Be aware that a negative test does not rule out COVID-19 and that the full quarantine must be completed. This is because it can take up to 14 days for infection to start.
   - Decide if all workers and clients should be tested regardless of exposure, or it there should be targeted testing of close or symptomatic employees and clients
   - Determine numbers being tested – at a minimum identify all exposed persons including workers, contractors, clients, and the general public
   - Arrange personnel and PPE to collect samples – self-collection of nasal swabs at a central location is an option without direct healthcare provider instruction or observation (note: testing is done under a general healthcare provider oversight)
   - Identify source for swabs and VTM
   - Decide whether to test at DOH Public Health Laboratories or commercially – see #3 below
   - Inform those being tested that a negative test does not rule out infection and that the full quarantine must be completed (except asymptomatic essential workers can continue to work with employer agreement but otherwise remain in quarantine)
   - Timing: collect specimens relative to the person’s exposure and incubation period. Ideally test at least 5-7 days from last exposure and no sooner than 48 hours after first exposure; if more than 14 days have elapsed since last exposure testing is not needed
   - Plan how to communicate with employer about test results
   - For high-density critical infrastructure workplaces with a confirmed case see: https://www.cdc.gov/coronavirus/2019-ncov/community/worker-safety-support/hd-testing.html Note that the present document version (6/13/2020) does not cover antigen testing.
   - For testing in congregate settings see: https://www.cdc.gov/coronavirus/2019-ncov/hcp/broad-based-testing.html

3. Doing tests at PHL:
   - LHJ should enroll in the PHL Quick Response Portal (QRP; formerly called eTO), and submit information through QRP to complete the form to accompany each specimen
   - For QRP enrollment, contact the COVID-19 testing submission support team at wacovidtest@doh.wa.gov or 206-418-5419
   - Before submitting more than 50 specimens at a time to PHL call 206-418-5419 to alert them of the number of specimens and the expected arrival date
   - Specimen collection and submission instructions: https://www.doh.wa.gov/Portals/1/Documents/5240/SCSI-2019-nCoV.pdf
4. Any worker/client testing positive and any probable case should receive a guidance document and be restricted from the worksite for 24 hours after fever is gone and respiratory symptoms improve and at least 10 days have passed since symptoms first appeared; OR if no symptoms, 10 days have passed since the sample testing positive was taken. A test-based strategy for return to work is discouraged because PCR results can remain positive for weeks after recovery and do not indicate infectivity. Reinfection is not considered to occur within three months of the onset of a case of COVID-19.

Enter the outbreak event into WDRS
1. Create a coronavirus outbreak event
2. Follow the naming convention: YYYY_County_COVID-19_FacilityName (_optional city/address _optional sequential number if more than one outbreak at the same facility, e.g., 2020_DOH_COVID_19_Office_Shoreline_2). Note that if this naming pattern is not followed initially, the name can be changed easily using the Edit button when in within the event.
3. Using the COVID-19 question package, enter the LHJ lead investigator, accountable jurisdiction, LHJ initial notification date (this is the reference date for the outbreak), and outbreak site name. Other fields can be entered if the LHJ chooses.
4. Enter the category type of facility (note that first finding the subcategory can help identify the main category type or consult: https://www.census.gov/eos/www/naics/):
   • Healthcare/other residential care: hospital, inpatient rehab, intermediate care, behavioral health, government behavioral health, supported living facility/SOLA, ambulatory surgery, cancer treatment center, outpatient, dialysis, dental, other
     • Note: include any government healthcare settings in this category; do not include long-term care settings in this category
   • Goods-producing industry: agriculture/farm work/produce packing, construction, fishing, forestry/hunting, manufacturing (food and food-related), manufacturing (non-food), natural resources and mining, other
     • Note: agriculture/produce packing would include produce that is packed directly and shipped (e.g., apples into boxes, strawberries into plastic containers) while if the food is further processed it is included as food manufacturing (e.g., cut and freeze strawberries); if the food is in a long-term storage unit it is included as warehousing under Service-producing industry
     • Unless an outbreak occurred in employee-supplied housing for agricultural workers only and not during work or travel, mark the outbreak as agriculture
   • Service-providing industry: bar/nightclub, childcare, K-12 school, college/university, personal care and service (hair, nails), place of worship, professional services/office-based (business, IT, finance, legal), retail, real estate, stadium/arena/venues, shelter/homeless service, summer camp, transportation/shipping/delivery, utilities, warehousing, other
     • Note: fraternity/sorority housing should be included as congregate housing
• Government: agency/facility, corrections, military, public safety, other
  • Note: all government healthcare settings should be entered as long-term care or as healthcare

• Community/other: congregate housing, large gathering, private event, other
  • Note: small family gatherings would not be reported as outbreaks, but reporting should be done for clusters due to private gatherings such as a reunion of extended families, which meet the community outbreak definition

5. If applicable, indicate if other LHJs, Tribes or states are involved (e.g., facility is in the reporting county but some workers live in another jurisdiction)

6. Enter available summary numbers, particularly the total number of confirmed and probable cases. Please enter any other available counts.
  • Non-workplace cases arising due to secondary transmission from cases in the cluster (e.g., transmission from a worker in an outbreak to a partner) should not be counted as part of the outbreak.

7. Link cases with transmission associated with the workplace, including employees and clients. Do not link cases exposed to a worker unrelated to the workplace (i.e., do not link a case who is a household partner infected by a worker in a workplace cluster.) LHJs can use coviddata.imt@doh.wa.gov for notification of cross-border situations and the LHJ data liaison can help notify other counties about outbreaks and cases from the other counties being linked to an outbreak. To link an existing WDRS case (person) event to the outbreak event:
   a) Open the outbreak event
   b) Click on (View) for ‘linked event(s)/contact(s)’
   c) Change operation to ‘Link to Existing Event’
   d) Click on button to Select Event
   e) Navigate to the person by entering name, birthdate or WDRS number and click to select the person
   f) Change Link Type to “Cluster”
   g) Go to bottom of page and click ‘Save’
   h) Repeat steps a-f for each WDRS case (person) event you want to link to the outbreak event
Sample line list headers for collecting case information:

<table>
<thead>
<tr>
<th>Last Name(s)</th>
<th>First Name</th>
<th>DOB (mm/dd/yy)</th>
<th>Worker phone number (Used for contact investigation)</th>
<th>Preferred language (if known)</th>
<th>Home Address (Street, Zip, City, State)</th>
<th>Sex (M/F)</th>
<th>Name of contracting agency (if applicable)</th>
<th>Did the worker report any symptoms (Y/N)?</th>
<th>If Yes: Symptom start date (mm/dd/yy)</th>
<th>Is this worker currently in isolation or quarantine?</th>
<th>Date of isolation/quarantine</th>
<th>Dates worked while contagious (2 days before symptom onset through isolation)</th>
</tr>
</thead>
</table>
